5231

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, *Director*

State: S.W. ALASKA

DESCRIPTIVE REPORT

~~*Topographic*~~ / *Hydrographic* } *Sheet No.* 21 5231

LOCALITY

KODIAK ISLAND

SOUTHERN COAST OF SITKINAK ISLAND

19 32

CHIEF OF PARTY

F.B.T. SIEMS, H.&G.E., C.&G.S.

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC FIELD SHEET NUMBER 21.

SOUTHERN COAST OF SITKINAK ISLAND, S.W. ALASKA

STR. SURVEYOR F.B.T.SIEMS,COMD'G.

SCALE 1:20,000

INSTRUCTIONS:

This work was executed under instructions dated April 22,1932.

GENERAL LOCATION:

The area surveyed on this sheet comprises the southern coast of Sitkinak Island, the eastern one of the Trinity Islands. On the east this sheet incompletely joins hydrography on Field Sheets No.22, season of 1931, H.5180 and along its southern limits incompletely joins hydrography on Field Sheet No.41. H.5232 Hydrography to the westward of this work has not been accomplished. A duplicate of this sheet has been prepared on which is indicated the additional work necessary to complete it next season. The duplicate sheet will be turned over to the party assigned to complete this sheet.

SURVEY METHODS:

This sheet was surveyed by the ship's launches, namely, the Motor-sailer and Launch No.3. Control was established by triangulation, which was executed in 1930, and supplemented by signals located by sextant cuts taken from the launch and ship and by topography. (See Descriptive Report for topographic sheet of this area) T.4711.

Signals BIG, HARD, POI, WALL, ENT and HILL were located by sextant cuts taken from the ship using triangulation stations for fixes. These cuts were plotted on this sheet by the Chief of Party during the field season and their intersections are perfect. The intermediate signals were located by sextant cuts from the launch using the above signals for control. The intersections of these cuts when plotted were satisfactory. All inclined angles were reduced to horizontal angles. Reference to the location of the sextant cuts is to be found under Hydrographic Information, Page 2, Volume 1, Sheet 21.

Recovered 1931 signals FOOT to FISK were transferred to this sheet from insert on Sheet No. 4660.

Standard survey methods were followed in the surveying of this area. Hand lead was used in depths up to 10 fathoms, and vertical casts were made in greater depths with power driven sounding machines.

DISCREPANCIES:

No discrepancies were found in plotting.

DANGERS:

The south coast of Sitkinak Island eastward from Sitkinak Lagoon consists of rocky precipitous bluffs of heights from 50 to 700 feet with many off-lying breakers, sunken rocks, and reefs all situated, however, within a half mile of the high water line. Heavy impenetrable kelp beds extend offshore an average distance of one and a half miles.

SHOALS:

A rocky shoal area outlined by heavy kelp exists in Lat. 56° 29.0', Long. 154° 11.2', with a least depth of 4½ fathoms at MLLW. A rocky shoal area outlined by heavy kelp exists in Lat. 56° 29.1', Long. 154° 08.1' with a least depth of 6-2/6 fathoms at MLLW.

A shoal area extends about ¾ mile southwest from signal ENT. The least depth is 1-4/6 fathoms at MLLW in Lat. 56° 29.8', Long. 154° 09.4'.

A shoal area exists in Lat. 56° 29.4', Long. 154° 12.7' with a least depth of 1-5/6 fathoms at MLLW.

CHANNELS:

Sitkinak Lagoon divides Sitkinak Island into two parts. A channel exists in the lagoon extending from the south side to the north side of the Island, at the middle it is very narrow and has a depth of only 2 feet at normal high water. The approach to the south entrance of the lagoon is fringed with numerous sunken and bare rocks. At normal high tides approximately 4 feet of water may be carried through this approach. Passage through the lagoon can only be made with a small boat. The Motorsailer drawing 3½ feet of water made a number of trips to the lagoon but only could this be done at high water, a calm sea and using every precaution to avoid the sunken rocks. As the approach to the entrance of the lagoon is very foul, no specific sailing directions to enter the lagoon can be mentioned. At low water the approach is practically dry and there is no well defined channel leading to the lagoon.

ANCHORAGE:

There is a suitable anchorage on the south coast of Sitkinak Island in 11 fathoms (20.1 m.) hard sandy bottom about 1 mile 206° true (S¼W mag.) Lat. 56° 29.2', Long. 154° 09.3', from the sharp pointed rocky bluff on the east side of the entrance to Sitkinak Lagoon. This anchorage affords fair shelter in northerly and northeast weather. There is an arched opening about 50 feet (15.2 m.) high within the rocky bluff, which can be seen from a distance of 3 miles offshore. To reach this anchorage steer for the bluff with the arch in it, bearing 26° true (N¼E mag.) and anchor when in not less than 11 fathoms MLLW.

The SURVEYOR used this anchorage during the field season.

TIDAL NOTE:

A camp party was established in Sitkinak Lagoon for the purpose of observing tides. Simultaneous comparisons were made with Kodiak Tides and the MLLW on the tide staff at Sitkinak Lagoon is 3.6 feet. The observed

tides were used in reducing the soundings on this sheet.

Position of tide staff in Sitkinak Lagoon is Lat. 56° 30.4'N, Long. 154° 08.4'W

REMARKS:

It is recommended that the heavy kelp patches sketched on the sheet be left uninked by the office because further soundings in this area may be obtained next season when work in this area is resumed for completion.

PLOTTING:

In plotting the sheet the following colored day letters were used:

Motorsailer	lower case	RED
Launch No. 3	lower case	GREEN

To verify the plotting of the positions on the smooth sheet a tracing was made and superimposed on the boat sheet. The positions checked satisfactorily.

to be
↓
and revised

COMPARISON WITH PREVIOUS SURVEYS:

No previous survey was made of this territory.

STATISTICS:

Work was started on June 15,1932 and completed on September 26,1932

Total number of positions ---------- 1240
Total number of soundings ---------- 4568
Total number of statute miles ---------- 213

STATISTICS FOR HYDROGRAPHIC SHEET NO. 21.

Date	Day	Vol.	Soundings	Positions	Statute Miles	Boat
June 16	a	1	652	170	26.4	M/S
" 22	b	1	489	145	21.8	M/S
" 23	c	1&2	553	161	24.4	M/S
" 24	d	2	325	79	14.0	M/S
July 12	e	2	250	78	13.9	M/S
" 14	f	2	442	131	19.7	M/S
Aug. 12	g	3	199	52	9.0	M/S
" 15	h	3	417	105	21.0	M/S
Sept.26	j	3&4	442	124	25.3	M/S
" 26	a.	5	799	195	37.5	#3

Respectfully submitted,

Chester J. Beyma.
Chester J. Beyma, Aid,
U.S.C. & G. Survey.

Revised and Approved,

F.B.T.Siems
F.B.T.SIEMS, H.&G.E.
Chief of Party, C.&G.S.

APPROVAL OF CHIEF OF PARTY

The field and office work on Sheet 21-1932, was done under my supervision and is approved, subject, however, to additional work required in the area covered by this survey.

A duplicate sheet of Sheet 21-1932 has been made on which is indicated the additional work required. The duplicate sheet will be turned over to the party assigned to complete this sheet. (See Season's Report).

F.B.T.SIEMS, H.&G.E.
Chief of Party, C.&G.S.

COAST PILOT NOTES

ALASKA PART II

1931 EDITION

Page 193 line 32:

Strike out entire line and insert: "is navigable through the north entrance by a six foot channel, except during easterly swells or seas. The south entrance should be attempted only during calm weather with sufficient tide to clear scattered rocks baring at low tide in the entrance. The lagoon is a flat traversed by tidal channels fairly deep near the entrances but only 3 feet deep at high water midway between them".

Page 193 line 38:

Strike out last sentence and insert: "Kelp beds extend as much as a half mile to 2 miles offshore on the southern and eastern ends of the Island and are generally confined to areas inside the twelve fathom curve.

A bank exists about 9½ miles SSW from the most easterly part of Sitkinak Island with a least depth of 11 fathoms (20.1 m.), rocky bottom. The bank with depths ranging from 11 (20.1 m.) to 20 fathoms (36.6 m.) covers an area varying from ½ to 1½ miles in width and six miles in length extending in a NNE and SSW direction.

Page 193 line 45:

Insert the following paragraph:

ANCHORAGE:

There is a suitable anchorage on the south coast of Sitkinak Island in 11 fathoms (20.1 m.) hard sandy bottom about 1 mile 206° true (S¼W mag.) Lat. 56° 29.2', Long. 154° 09.3', from the sharp pointed rocky bluff on the east side of the entrance to Sitkinak Lagoon. This anchorage affords fair shelter in northerly and northeast weather. There is an arched opening about 50 feet (15.2 m.) high within the rocky bluff, which can be seen from a distance of 3 miles offshore. To reach this anchorage steer for the bluff with the arch in it, bearing 26° true (N½E mag.) and anchor when in not less than 11 fathoms MLLW.

March 10, 1933.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5231

Locality Southern Coast of Sitkinak I., South Coast of Kodiak Island, Alaska

Chief of Party: F.B.T.Siems in 1932
Plane of reference is mean lower low water reading
3.6 ft. on tide staff at Sitkinak Island Lagoon
9.3 ft. below B. M. 1

Height of mean higher high water above plane of reference is 7.6 feet

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Harrison

Chief, Division of Tides and Currents.

Section of Field Records

Sheet No H 5231
Surveyed in 1932
Chief of Party - F.B.T. Siems
Surveyed by - R.R. Moore and
S.M. Marchand
Protracted by - Chester J. Begnoche
Soundings plotted by - Chester J. Begnoche
Verified and Inked by - G.C. McGlasson

1. The records conform to the requirements of the general instructions ✓
2. The plan and character of development fulfill the requirements of the general instructions. ✓
3. The plan and extent of development satisfies the specific instructions. except as noted in Rec. Rep ✓
4. There are no series of cross lines run on this hydrographic sheet but where lines do cross they are found to be satisfactory. ✓

5. The usual depth curves can be completely drawn within the limits of the sheet.
6. The office draftsmen did not have to do over any part of drafting done by field party except as noted on station sheet.
7. The junction with H 6180 was satisfactory. H 6202, which joins this sheet on the south has not been verified and inked consequently this sheet will be considered at a later date.
8. Further surveying on this sheet will be necessary to develop the kelp areas. This work will probably be done next year. Consequently the kelp on this survey is shown in ink and pencil. The kelp in pencil should not be removed until ~~the~~ further developments are made.

The rock awash in lat 56°-29' + 1750 m and long 154°-02' + 450 m was taken from Boat sheet, and it is not shown on the topographic sheet. However this rock probably exists as the area is very rough and rugged.

The shore line from O Foot to O Mid was intentionally omitted from H5231 because a new topographic sheet covering the area will be made ~~out~~ and the shore line can be added when it is received in this office.

Respectfully submitted,
E. C. McGlossen

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5231.
Southern Coast of Sitkinak I., Kodiak I., Alaska.
Surveyed June - September 1932.
Instructions dated April 22, 1932.

Chief of Party - F. B. T. Siems.
Surveyed by - R. R. Moore and G. M. Marchand.
Protracted and soundings plotted by - C. J. Beyma.
Verified and inked by - G. C. McGlasson.

1. The records conform to the requirements of the Hydrographic Manual.

2. The plan and extent of development satisfy the specific instructions, except that the sheet is incomplete, due to close of season. Refer to Descriptive Reports H. 5231 and T. 4711 for method of locating signals and for recommendations for future work.

3. Soundings are consistent. There is no system of crosslines but the development is satisfactory in the completed areas. Heavy kelp marks the offshore dangers; lighter kelp covers the foul areas nearer shore. The field party plotted a number of rocks as awash, Bares 9, 10, and 11 feet MLLW. These were changed to bare rocks (1'), (2') and (3') to conform to regular usage, as height of MHHW is only 7.6 feet above MLLW, the plane of reference.

4. Curves in the completed areas are satisfactory. Only enough development was done in some of the inshore areas to show their foul nature.

5. Junctions with adjacent sheets H. 5180 and H. 5232 are incomplete, additional work being contemplated on this sheet, H. 5231. Lines overlapping H. 5180 show good agreement in depths.

6. Comparison:- This is the basic survey, no previous surveys have been made in this area.

Chart 8502 is too small scale as a basis for comparison but shows nothing in conflict with this survey.

7. Recommendations:- The portion of the survey executed in 1931 is satisfactory. When the additional surveys recommended in the approval note of the descriptive report are made, the work should be plotted on H. 5231. The additional work should include development on all shoal indications, which are numerous.

8. Reviewed by - R. J. Christman, April 24, 1933.

Inspected: E. P. Ellis.

Approved:- Additional work required for development and to cover area between sheet limits.

L. O. Colbert

L. O. Colbert, Chief, Section of Field Records.

Chief, Div. of Hydr'y and Tides

Form 537

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 5231

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 21

REGISTER NO. 5231

State ~~SxW~~.Alaska

General locality ~~XXXXXXXXXXXXX~~ Kodiak I.

Locality Southern Coast of Sitkinak Island

Scale 1:20,000 Date of survey June 16 - Sept. 26, 1932

Vessel Motor Sailer and Launch No.3.

Chief of Party F.B.T.Siems, H.&G.E.

Surveyed by R.R.Moore, G.M.Marchand

Protracted by Chester J. Beyma

Soundings penciled by Chester J. Beyma

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by L.C. McClosson

Verified by L.C. McClosson

Instructions dated April 22-nd, 1932

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5231

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	1240
Number of positions checked	227
Number of positions revised	0
Number of soundings recorded	1568
Number of soundings revised	32
Number of signals erroneously plotted or transferred	None

Date: 31 March 1933

Cartographer: C. McClosson